

Curriculum Vitae

PERSONAL DATA

FULL NAME: Viet Quoc Pham
PLACE OF BIRTH: Hai Duong, Vietnam
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PROFILES: Google Scholar, ResearchGate, Publons, Scopus, LinkedIn, and ORCID

OVERVIEW

I am an Assistant Professor in Networks and Distributed Systems in the School of Computer Science and Statistics at Trinity College Dublin, the University of Dublin. I am also associated with CONNECT, an SFI centre for future networks and communications, and AdvanceCRT, an SFI centre for research training in advanced networks for sustainable societies, where I lead the COmputing, INtelligence, and NEtworking (COIN) research group. My main research interest is to employ an arsenal of mathematical tools such as convex optimization, game theory, and machine learning to design, analyze, and optimize complex networks and applications such as cloud edge computing, 6G wireless networks, metaverse, blockchain, and wireless AI. While my work addresses research aspects of the interplay between AI and wireless, I am also interested in multidisciplinary research to leverage expertise from different sciences and disciplines.

EDUCATION

- AUG. 2017 Doctor of Engineering in TELECOMMUNICATIONS, **Inje University**, Kimhae, Korea
Thesis: "Fair and Energy-Efficient Resource Allocation Optimization in Wireless Networks"
Academic Advisor: Prof. [Won-Joo HWANG](#)
Prize: **Best Ph.D. Dissertation Award**, Ranking #1 in Engineering
- AUG. 2015 Master of Science in TELECOMMUNICATIONS, **Inje University**, Kimhae, Korea
Thesis: "Multi-Timescale Cross-Layer Design in Wireless Multihop Networks"
Academic Advisor: Prof. [Won-Joo HWANG](#)
- AUG. 2013 Bachelor of Science in ELECTRONICS AND TELECOMMUNICATIONS,
Hanoi University of Science and Technology, Hanoi, Vietnam
Thesis: "Building an Observational Data Processing and Archiving Center for Automatic
Water Level Gathering and Alarming System" (in Vietnamese)
Academic Advisor: Prof. [Van-Duc NGUYEN](#)

ACADEMIC EXPERIENCE

- JAN. 2023 - CURRENT Assistant Professor in Networks and Distributed Systems,
School of Computer Science and Statistics, Trinity College Dublin,
The University of Dublin, Republic of Ireland
- JAN. 2023 - CURRENT TCD Supervisor,
SFI Centre for Research Training in Advanced Networks for Sustainable Societies,
ADVANCE CRT, Republic of Ireland

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| JAN. 2023 - CURRENT | Associate Investigator, SFI Research Centre for Future Networks and Communications, CONNECT, Republic of Ireland |
| JAN. 2020 - JAN. 2023 | Research Professor, Korean Southeast Center for the 4th Industrial Revolution Leader Education, Pusan National University, Republic of Korea |
| MAR. 2018 - DEC. 2019 | Research Professor, ICT Convergence Research Center, Changwon National University/Inje University, Republic of Korea |
| SEP. 2017 - FEB. 2018 | Post-Doctoral Research Fellow, Department of Computer Science and Engineering, Kyung Hee University, Republic of Korea |
| SEP. 2013 - JUN. 2017 | Research Assistant (PhD Student), Department of Information and Communication System, Inje University, Republic of Korea |
| FEB. 2012 - AUG. 2013 | Research Assistant (Senior Student), School of Electronics and Telecommunications, Hanoi University of Science and Technology, Vietnam |

VISITING EXPERIENCE

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| JUN. 2023 - JUL. 2023 | University of Ulsan, Korea, Prof. Sunghwan Kim |
| JAN. 2016 - FEB. 2016 | Tokyo University of Science, Japan, Prof. Mikio Hasegawa |
| AUG. 2019 - AUG. 2019 | Tokyo University of Science, Japan, Prof. Mikio Hasegawa |

GRANTS AND PROJECTS

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| 2023 - 2025 | Enterprise Ireland's ERC Funding Support (€15,982, 2 years) Principal Investigator, Project EC20231518 Title: <i>Generalized Knowledge Abstraction for Data Reconstruction and Lifelong Learning</i> |
| 2019 - 2024 | Korea NRF Basic Science and Research (500,000,000 KRW, 5 years) Principal Investigator (sole PI), Grant NRF-2019R1C1C1006143 Title: <i>Privacy Enhancing Connected Cars in 5G and Beyond</i> |
| 2022 - 2024 | FDCRGP Grant, Nazarbayev University (\$136,000, 3 years) Co-Principal Investigator, Grant No. 11022021FD2925 Title: <i>Edge-assisted Activity Recognition using Skeletal Representation and DL for Video Surveillance</i> |
| 2019 - 2024 | Korea NRF Basic Science and Research (500,000,000 KRW, 5 years) Key Participant, Grant NRF-2019R1I1A3A01060518 Title: <i>Edge Computing in the 5G Ecosystem: Joint 4C Framework and Its Applications</i> |
| 2018 - 2019 | Korea NRF Basic Science and Research (25,000,000 KRW), Key Participant Project in collaboration with The University of Sydney, Grant NRF-2018K2A9A1A01090540 Title: <i>Low Overhead Channel Access for 5G Mobile Communications in Large-Scale IoT Networks</i> |

2020 - 2027 **Brain Korea (BK) 21** (549,825,000 KRW/year), Participant, Pusan National University, Korean Southeast Center for the 4th Industrial Revolution Leader Education

AWARDS AND RECOGNITION

- Coordination Support Award, Enterprise Ireland, 2023-2025.
- Decade of Contribution Award, Wireless AI (WAI) Laboratory, Pusan National University, 2023.
- Best Paper Award, IEEE International Conference on Advanced Technologies for Communications (ATC), 2022.
- Award for Outstanding Contributions and Research Excellence, Minister of Education (Korea), 2021.
- Golden Globe Award 2021 for young Scientists, Ministry of Science and Technology (Vietnam), 2021.
- World's Top 2% of Scientists on Stanford University List, 2021-2022.
- Top reviewer award, IEEE Transactions on Vehicular Technology, 2020.
- Best Ph.D. Dissertation Award (ranking #1), Inje University, 2017.
- Leadership and Scientific Publication Scholarship, Inje University, 2015-2016.
- Best Paper Award, KMMS 2014, JKCCS 2016, KJCCS 2020, KICS 2021.
- Prize for Excellent Students, Vietnamese Students' Association in Korea (VSAK), 2015.
- University Scholarship for Excellent students, HUST, 2010-2013.

MENTORING AND TEACHING EXPERIENCE

Lecturer, Trinity College Dublin, 2023

1. **Microprocessor Systems - CSU23021** (Hilary Term 2023, undergraduate course): *This module provides a holistic overview of how a typical general purpose computing system functions, followed by a deep-dive into the various key architectural features of such systems.*

Assistant Lecturer, Pusan National University, 2021

1. **AI for NextG networks** (Winter 2021, graduate course): *The students learn how to apply different AI techniques (e.g., machine, deep, federated, and reinforcement learning) for NextG networks, and how NextG wireless can help to improve the performance of AI and deployment of AI services.*

Adjunct Lecturer, Inje University, 2018 - 2019

1. **Convex optimization** (Fall 2018, graduate course): *This course focuses on the fundamentals of convex functions and problem formulation and optimization. Further, this course is also a prerequisite for advanced courses, such as game theory, artificial intelligence, and machine learning.*
2. **Game theory in wireless and communication networks** (Spring 2019, graduate course): *This course equips the students with promising mathematical tools (e.g., cooperative games, coalitional games, and Stackelberg games) to solve problems in wireless and communication networks from the economics perspectives.*
3. **Machine learning in wireless and communication networks** (Fall 2019, graduate course): *This course delivers the fundamental concepts of machine learning (supervised and unsupervised learning) and its applications to future wireless networks and Internet-of-Things systems.*

Teaching Assistant, Inje University, 2016 - 2017

1. Introduction to Android Programming (Fall 2016, undergraduate course): *Responsible for preparation of teaching materials, assignments, term projects, and labs.*
2. Data and Computer Communications (Fall 2016, Spring 2017, Fall 2017, undergraduate course): *Responsible for preparation of teaching materials, term projects, and labs.*

Mentoring Assistant, Hanoi University of Science and Technology, 2012

1. Project II (Fall 2012, undergraduate course): *Worked as a senior student and guided 4th-year undergraduate students on programming skills and testbed designs.*

SUPERVISION

Doctoral Students

- Hoc Thai Vu [University of Ulsan, 2020/03-Present]. Topic: Performance analysis and data-driven optimization of 6G short-packet communications.
- Mai Thi Le [Pusan National University, 2021/03-Present]. Topic: Wireless artificial intelligence (i.e., wireless AI) and deep reinforcement learning (DRL) for aerial access networks.
- Nguyen Minh Duong [Pusan National University, 2020/09-Present]. Topic: Deep reinforcement learning and communication-efficient federated learning for very large-scale IoT systems.
- Swe Swe Latt [Pusan National University, 2020/09-Present]. Topic: Resource allocation optimization for federated learning in future 6G wireless networks.
- Dao Thien Thanh [Pusan National University, 2020/09-Present]. Topic: Deep learning and depth map for UAV and robotic applications.
- Daeil Noh [Pusan National University, 2020/09-Present]. Topic: Deep learning for UAV recognition.
- Sang Min Lee [Pusan National University, 2020/09-Present]. Topic: Communication-efficient federated learning for massive IoT in future 6G wireless networks.

Alumnus

- Nadia Iradukunda [Ph.D., Inje University, 2019/09-2022/08]. Topic: Resource allocation optimization for UAV wireless backhaul 5G networks. Current position: Lecturer, Mount Kenya University, Rwanda.
- Mai Thi Le [MSc, Inje University, 2019/3-2021/2]. Topic: Swarm intelligence for D2D communications. Current position: PhD student, Pusan National University, Korea.
- Hoang Huu Trung [Ph.D., Inje University, 2018/9-2021/2]. Topic: ML for mmWave communications. Current position: Lecturer, Hue University, Vietnam.
- Vo Ta Hoang [Ph.D., Inje University, 2017/9-2020/2]. Topic: Resource allocation for MEC systems. Current position: Lecturer, Thuyloi University, Vietnam.
- Nguyen Tien Hoang [MSc, Inje University, 2017/9-2019/8]. Topic: Coalitional games for NOMA-MEC. Current position: QA Project Leader, LG Innotek, Vietnam.
- Maurice Nduwayezu [MSc, Inje University, 2017/9-2019/8]. Topic: DRL for NOMA-MEC offloading. Current position: PhD student, Seoul National University of Science and Technology (SeoulTech), Korea.
- Girmay Gebremariam [MSc, Inje University, 2017/9-2019/8]. Topic: Swarm intelligence for D2D communications with unlicensed spectrum
- Akmal Azizan [MSc, Inje University, 2017/9-2019/8]. Topic: Blockchain for healthcare applications

PROFESSIONAL ACTIVITIES

Membership

- Member of the IEEE.
- IEEE CTSoc Wireless and Network Technologies (WNT) Technical Committee

Editors

- [Scientific Reports](#) [Nature, Q1, IF 4.379, 2022-Present]
- [Journal of Network and Computer Applications](#) [Elsevier, Q1, IF 6.281, 2020-Present]

Guest Editors

- [IEEE Transactions on Consumer Electronics](#) [Guest Editor, Federated Learning for Personalized Recommendation of Consumer Electronics, 2023]
- [Computer Communications](#) [Guest Editor, Intelligent Device-free Sensing for Future Internet of Things: Emerging Trends and Challenges, 2023]
- [IEEE Internet of Things Journal](#) [Lead Guest Editor, Aerial Computing for the Internet of Things (IoT), 2021-2022]
- [Frontiers in Communications and Networks](#) [Associate Editor, 2020-Present]
- [Sensors](#) [Guest Editor, Security and Privacy in the Internet of Things (IoT), 2021-2022]

Invited Referee for Journals

- **IEEE Letters:** IEEE Communications Letters, IEEE Wireless Communications Letters, IEEE Networking Letters.
- **IEEE Transactions/Journals:** IEEE Transactions on Communications, IEEE Transactions on Wireless Communications, IEEE Transactions on Vehicular Technology, IEEE Transactions on Mobile Computing, IEEE Transactions on Cloud Computing, IEEE Transactions on Signal Processing, IEEE Transactions on Services Computing, IEEE Transactions on Parallel and Distributed Systems, IEEE Transactions on Computational Social Systems, IEEE Transactions on Green Communications and Networking, IEEE Transactions on Cognitive Communications and Networking, IEEE Transactions on Signal and Information Processing over Networks, IEEE Transactions on Industrial Informatics, IEEE Transactions on Network Science and Engineering, IEEE Internet of Things Journal, IEEE Journal on Selected Areas in Communications, IEEE Journal of Selected Topics in Signal Processing, IEEE Open Journal of the Communications Society, Proceedings of the IEEE.
- **IEEE Magazines:** IEEE Communications Magazine, IEEE Wireless Communications, IEEE Control Systems Magazine, IEEE Vehicular Technology Magazine, IEEE Computational Intelligence Magazine, IEEE Consumer Electronics Magazine, IEEE Communications Standards Magazine, IEEE Internet Computing.
- **Other Journals:** ACM Computing Surveys, IEEE Systems Journal, IEEE Access, Computer Networks, Transactions on Emerging Telecommunications Technologies, EURASIP Journal on Wireless Communications and Networking, International Journal of Distributed Sensor Networks, Sensors.

Technical Program Committee

- **2023:** IEEE International Conference on Communications (ICC), IEEE Wireless Communications and Networking Conference (WCNC).
- **2022:** IEEE International Conference on Communications (ICC), IEEE Wireless Communications and Networking Conference (WCNC).
- **2021:** IEEE 94th Vehicular Technology Conference (VTC2021-Fall), IEEE International Smart Cities Conference (ISC2), EAI International Conference on Heterogeneous Networking for Quality, Reliability, Security and Robustness (EAI Qshine), IEEE Global Communications Conference (GLOBECOM).
- **2020:** ICCIS, IEEE Wireless Communications and Networking Conference (WCNC), IEEE International Conference on Communications (ICC), IEEE 91st Vehicular Technology Conference (VTC2020-Spring), IEEE Workshop on Security Trust Privacy in Emerging Cyber-Physical Systems (STP-CPS).

TPC Chair/Co-Chair/Track Chair

- **2023:** 12th International Symposium on Information and Communication Technology (SoICT 2023), IEEE GLOBECOM 2023 "Edge Learning over Next-Generation Networks" Workshop.
- **2022:** 11th EAI International Conference on Game Theory for Networks (EAI GameNets 2022), ICIT 2022, 11th International Symposium on Information and Communication Technology (SoICT 2022), IEEE International Conference on Advanced Technologies for Communications (ATC).

Publicity Chair/Co-Chair

- **2023:** International Conference on Wireless Communications and Signal Processing (WCSP 2023).

FIELDS OF RESEARCH INTEREST

- **Edge Computing:** resource optimization, aerial computing, edge of things, and edge AI.
- **Future Networks:** 6G, Internet of Things, intelligent surfaces, metaverse, and blockchain.
- **Wireless AI:** communication-efficient federated learning, sustainable AI, and secure learning.
- **AI for Future Networks:** deep learning, deep reinforcement learning, and federated learning.

PUBLICATIONS

Books

- [1] C. de Alwis, **Q.-V. Pham**, and M. Liyanage, *6G Frontiers: Towards Future Wireless Systems*, Wiley-IEEE Press, Oct. 2022.

Book Chapters

- [1] T. R. Gadekallu, R. Chengoden, N. Victor, T. Huynh-The, P. K. R. Maddikunta, **Q.-V. Pham**, and P. Hegde, "Blockchain Technologies for Metaverse," in *Metaverse Communication and Computing Networks: Applications, Technologies, and Approaches*, Wiley-IEEE Press, 2023.
- [2] T. Huynh-The, **Q.-V. Pham**, X.-Q. Pham, T. Do-Duy, and T. R. Gadekallu, "AI and Computer Vision Technologies for Metaverse," in *Metaverse Communication and Computing Networks: Applications, Technologies, and Approaches*, Wiley-IEEE Press, 2023.
- [3] **Q.-V. Pham**, T. Huynh-The, M. Zeng, Z. Yang, Z. Ding, and W.-J. Hwang, "The Emergence of Aerial Computing: Applications and Challenges," in *6G Wireless: The Communication Paradigm Beyond 2030*, CRC Press, 2022.

- [4] M. Zeng, E. Bedeer, X. Li, **Q.-V. Pham**, O. A. Dobre, P. Fortier, and L. A. Rusch, "IRS-Empowered Wireless Communications: State-of-the-Art, Key Techniques, and Open Issues," in *6G Wireless: The Communication Paradigm Beyond 2030*, CRC Press, 2022.
- [5] Z. Yang, **Q.-V. Pham**, C. Huang, Q. Yang, T. Guo, Y. Xu, and Z. Zhang, "Machine Learning for UAV Communication-Assisted Computing Networks," in *Secure and Digitalized Future Mobility: Shaping the Ground and Air Vehicles Cooperation*, CRC Press, 2022.
- [6] **Q.-V. Pham**, D. C. Nguyen, T. Huynh-The, W.-J. Hwang, and P. N. Pathirana, "Artificial intelligence and big data for COVID-19 and social distancing," in *Enabling Technologies for Social Distancing: Fundamentals, concepts and solutions*, IET Digital Library, 2022.
- [7] D. C. Nguyen, **Q.-V. Pham**, M. Ding, P. N. Pathirana, and A. Seneviratne, "Security, privacy and blockchain applications in COVID-19 detection and social distancing," in *Enabling Technologies for Social Distancing: Fundamentals, concepts and solutions*, IET Digital Library, 2022.
- [8] N.-N. Dao, N.-T. Dinh, **Q.-V. Pham**, T. V. Phan, S. Cho, and T. Braun, "Vulnerabilities in fog/edge computing from architectural perspectives," in *Fog/Edge Computing for Security, Privacy, and Applications*, Springer, 2021.

Preprints and Under Review

- [1] M. Le, **Q.-V. Pham**, H. T. Dinh, D. N. Nguyen, and W.-J. Hwang "Wirelessly Powered Federated Learning Networks: Joint Power Transfer, Data Sensing, Model Training, and Resource Allocation," under review, *IEEE Internet of Things Journal*.
- [2] M. Le, **Q.-V. Pham**, T. Huynh-The, T. Do-Duy, T.-H. Vu, and W.-J. Hwang "Applications of Distributed Machine Learning for Future Internet: A Comprehensive Survey," under review, *IEEE Communications Surveys and Tutorials*.
- [3] M. Le, **Q.-V. Pham**, Q. V. Do, and W.-J. Hwang, "Resource Allocation in THz-NOMA-enabled HAP Systems Based on Deep Reinforcement Learning," under review, *IEEE Wireless Communications Letters*.
- [4] T.-H. Vu, T.-T. Nguyen, **Q.-V. Pham**, D. B. da Costa, and S. Kim, "THz-based Rate-Splitting Multiple-Access (RSMA): Is It Always Better Than NOMA?," under review, *IEEE Transactions on Vehicular Technology*.
- [5] N. C. Luong, **Q.-V. Pham**, T. Huynh-The, V. D. Nguyen, D. W. K. Ng, S. Chatzinotas, and D. Niyato, "Edge Computing for Semantic Communication Enabled Metaverse: An Incentive Mechanism Design," under review, *IEEE Network*.
- [6] S. Pakravan, J.-Y. Chouinard, X. Li, M. Zeng, W. Hao, **Q.-V. Pham**, and O. A. Dobre, "Physical Layer Security for NOMA Systems: Requirements, Issues, and Recommendations," under review, *IEEE Internet of Things Journal*.
- [7] A. K. Bashir, N. Victor, S. Bhattacharya, T. Huynh-The, R. Chengoden, G. Yenduri, P. P. R. Maddikunta, **Q.-V. Pham**, T. R. Gadekallu, and M. Liyanage, "A Survey on Federated Learning for the Healthcare Metaverse: Concepts, Applications, Challenges and Future Directions," under review, *IEEE Journal of Biomedical and Health Informatics*.
- [8] Y. Ding, Z. Yang, **Q.-V. Pham**, Z. Zhang, and M. Shikh-Bahaei, "Distributed Machine Learning for UAV Swarms: Computing, Sensing, and Semantics," under review, *IEEE Internet of Things Journal*.
- [9] T.-H. Vu, **Q.-V. Pham**, D. B. da Costa, M. Debbah, and S. Kim, "Physical-Layer Security in Short-Packet NOMA Systems with Untrusted Near User," submitted, *IEEE International Conference on Communications (ICC)*, 2023.
- [10] X.-T. Nguyen, M.-D. Nguyen, **Q.-V. Pham**, V.-Q. Do, and W.-J. Hwang, "Resource Allocation for Compression-aided Federated Learning with High Distortion Rate," submitted, *IEEE International Conference on Communications (ICC)*, 2023.

- [11] M.-D. Nguyen, **Q.-V. Pham**, H. T. Dinh, L. Tran-Thanh, D. N. Nguyen, and W.-J. Hwang, "Label driven Knowledge Distillation for Federated Learning with non-IID Data," under review, *International Conference on Learning Representations (ICLR)*, 2023.
- [12] T.-H. Vu, **Q.-V. Pham**, T.-T. Nguyen, D. B. da Costa, and S. Kim, "Enhancing RIS-Aided Two-Way Full-Duplex Communication with Non-Orthogonal Multiple Access," under review, *IEEE Transactions on Vehicular Technology*.
- [13] L. N. T. Huynh, **Q.-V. Pham**, Y. K. Tun, M. D. Hossain, and E.-N. Huh, "Optimization of Task Offloading for Microservice-enhanced Vehicular Edge Computing," under revision, *IEEE Transactions on Vehicular Technology*.
- [14] Q. V. Do, **Q.-V. Pham**, and W.-J. Hwang, "QoE-Driven Task Association and Resource Allocation in Aerial-Access Edge Computing Using Deep Reinforcement Learning," under revision, *IEEE Transactions on Communications*.
- [15] T. T. Nguyen, C. M. Nguyen, T. Huynh-The, **Q.-V. Pham**, Q. V. H. Nguyen, I. Razzak, D. V. Le, and V. J. Reddi, "Improving Performance of Deep Reinforcement Learning by Incorporating Human Expertise," submitted, *International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*, 2023.
- [16] A. Samanta, **Q.-V. Pham**, N.-N. Dao, A. Muthanna, and S. Cho, "mISO: Incentivizing Demand-Agnostic Microservices for Edge-Enabled IoT Networks," under revision, *Transactions on Services Computing*.
- [17] T. R. Gadekallu, **Q.-V. Pham**, T. Huynh-The, S. Bhattacharya, P. K. R. Maddikunta, and M. Liyanage, "Federated Learning for Big Data: A Survey on Opportunities, Applications, and Future Directions," under revision, *Engineering Applications of Artificial Intelligence*.
- [18] B. Prabadevi, **Q.-V. Pham**, M. Liyanage, N. Deepa, Mounik VVSS, S. Reddy, P. K. R. Maddikunta, N. Khare, T. R. Gadekallu, and W.-J. Hwang, "Deep Learning for Intelligent Demand Response and Smart Grids: A Comprehensive Survey," under review, *Computer Science Review*.
- [19] M. Alazab, R. Vinayakumar, S. Srinivasan, **Q.-V. Pham**, S. Venkatraman, Soman KP, and K. Simran, "Deep Learning for Cyber Security Applications: A Comprehensive Survey," under revision, *IEEE Communications Surveys and Tutorials*.

Journal Articles

- [1] T.-H. Vu, T.-V. Nguyen, **Q.-V. Pham**, D. B. da Costa, and S. Kim, "STAR-RIS Enabled Short-Packet NOMA Systems," *IEEE Transactions on Vehicular Technology*, in press.
- [2] N. H. Chu, D. N. Nguyen, H. T. Dinh, **Q.-V. Pham**, K. T. Phan, W.-J. Hwang, and E. Dutkiewicz, "AI-enabled mm-Waveform Configuration for Autonomous Vehicles with Integrated Communication and Sensing," *IEEE Internet of Things Journal*, in press.
- [3] T.-H. Vu, T.-T. Nguyen, **Q.-V. Pham**, D. B. da Costa, and S. Kim, "A Novel Partial Decode-and-Amplify NOMA-Inspired Relaying Protocol for Uplink Short-Packet Communications," *IEEE Wireless Communications Letters*, in press.
- [4] N. Iradukunda, **Q.-V. Pham**, Z. Ding, and W.-J. Hwang, "THz-Enabled UAV Communications using Non-Orthogonal Multiple Access," *IEEE Transactions on Vehicular Technology*, in press.
- [5] C. de Alwis, P. Kumar, **Q.-V. Pham**, K. Dev, A. Kalla, M. Liyanage, and W.-J. Hwang, "Towards 6G: Key Technological Directions," *ICT Express*, in press.
- [6] M.-D. Nguyen, S.-M. Lee, **Q.-V. Pham**, H. T. Dinh, D. N. Nguyen, and W.-J. Hwang, "HCFL: A High Compression Approach for Communication-Efficient Federated Learning in Very Large Scale IoT Networks," *IEEE Transactions on Mobile Computing*, in press.

- [7] Y. M. Saputra, D. N. Nguyen, H. T. Dinh, **Q.-V. Pham**, E. Dutkiewicz, and W.-J. Hwang, "Federated Learning Framework with Straggling Mitigation and Privacy-Awareness for AI-based Mobile Application Services," *IEEE Transactions on Mobile Computing*, in press.
- [8] M. Gheisari, A. Javadpour, J. Gao, A. A. Abbasi, **Q.-V. Pham**, and Y. Liu, "PPDMIT: a lightweight architecture for privacy-preserving data aggregation in the Internet of Things" *Journal of Ambient Intelligence and Humanized Computing*, in press.
- [9] T. Huynh-The, T. R. Gadekallu, W. Wang, G. Yenduri, P. Ranaweera, **Q.-V. Pham**, D. B. da Costa, and M. Liyanage, "Blockchain for the Metaverse: A Review," *Future Generation Computer Systems*, vol. 143, pp. 401-419, Jun. 2023.
- [10] T.-H. Vu, T.-V. Nguyen, **Q.-V. Pham**, D. B. da Costa, and S. Kim, "Short-Packet Communications in UAV-Based NOMA Systems under Imperfect CSI and SIC," *IEEE Transactions on Cognitive Communications and Networking*, vol. 9, no. 2, pp. 463-478, Apr. 2023.
- [11] **Q.-V. Pham**, M. Zeng, O. A. Dobre, Z. Ding, and L. Song, "Guest Editorial Special Issue on Aerial Computing for the Internet of Things (IoT)," *IEEE Internet of Things Journal*, vol. 10, no. 7, pp. 5623-5625, Apr. 2023.
- [12] T.-H. Vu, T.-V. Nguyen, **Q.-V. Pham**, D. B. da Costa, and S. Kim, "Hybrid Long-and Short-Packet Based NOMA Systems with Joint Power Allocation and Beamforming Design," *IEEE Transactions on Vehicular Technology*, vol. 72, no. 3, pp. 4079-4084, Mar. 2023.
- [13] T. Huynh-The, T.-V. Nguyen, **Q.-V. Pham**, V.-S. Doan, D. B. da Costa, K.-H. Kwon, and D.-S. Kim, "Efficient Convolutional Networks for Robust Automatic Modulation Classification in OFDM-Based Wireless Systems," *IEEE Systems Journals*, vol. 17, no. 1, pp. 964-975, Mar. 2023.
- [14] W. Wang, F. H. Memon, Z. Lian, H. Xu, T. R. Gadekallu, **Q.-V. Pham**, K. Dev, and C. Su, "Secure-Enhanced Federated Learning for AI-Empowered Electric Vehicle Energy Prediction," *IEEE Consumer Electronics Magazine*, vol. 12, no. 2, pp. 27-34, Mar. 2023.
- [15] T. Huynh-The, **Q.-V. Pham**, X.-Q. Pham, T. T. Nguyen, Z. Han, and D.-S. Kim, "Artificial Intelligence for the Metaverse: A Survey," *Engineering Applications of Artificial Intelligence*, vol. 117, pp. 105581, Jan. 2023.
- [16] H. Dang-Ngoc, D. N. Nguyen, K. Ho-Van, H. T. Dinh, E. Dutkiewicz, **Q.-V. Pham**, and W.-J. Hwang, "Secure Swarm UAV-assisted Communications with Cooperative Friendly Jamming," *IEEE Internet of Things Journal*, vol. 9, no. 24, pp. 25596-25611, 15 Dec. 2022.
- [17] D.-I. Noh, **Q.-V. Pham** et al., "Signal Preprocessing Technique With Noise-Tolerant for RF-Based UAV Signal Classification," *IEEE Access*, vol. 10, pp. 134785-134798, Dec. 2022.
- [18] S. K. Jagatheesaperumal, **Q.-V. Pham**, R. Ruby, Z. Yang, C. Xu, and Z. Zhang, "Explainable AI over the Internet of Things (IoT): Overview, State-of-the-Art and Future Directions," *IEEE Open Journal of the Communications Society*, vol. 3, pp. 2106-2136, Nov. 2022.
- [19] P. K. R. Maddikunta, **Q.-V. Pham**, D. C. Nguyen, T. Huynh-The, O. Aouedi, G. Yenduri, S. Bhattacharya, and T. R. Gadekallu, "Incentive techniques for the Internet of Things: A survey," *Journal of Network and Computer Applications*, vol. 206, pp. 103464, Oct. 2022.
- [20] A. S. Sadiq, A. A. Dehkordi, S. Mirjalili, and **Q.-V. Pham**, "Nonlinear Marine Predator Algorithm: A Cost-effective Optimizer for Fair Power Allocation in NOMA-VLC-B5G Network," *Expert Systems with Applications*, vol. 203, pp. 117395, Oct. 2022.
- [21] T. T. Nguyen, Q. V. H. Nguyen, D. T. Nguyen, D. T. Nguyen, T. Huynh-The, S. Nahavandi, T. T. Nguyen, **Q.-V. Pham**, and C. M. Nguyen, "Deep learning for deepfakes creation and detection: A survey," *Computer Vision and Image Understanding*, vol. 233, pp. 103525, Oct. 2022.

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LANGUAGES

VIETNAMESE: Mother-tongue
 ENGLISH: Fluent
 KOREAN: Basic Knowledge

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